

# Speed Controller

(Panel Mount)

P/N: CC-01

**A low-cost manual velocity controller designed to interface between 12 or 24V battery power and a remote grounded proportional solenoid valve**

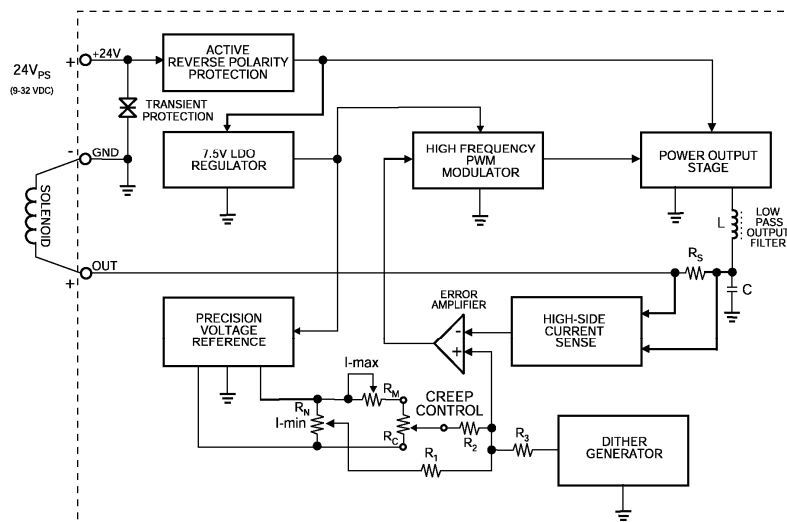
- Accepts a wide range of input operating voltages (12 or 24 VDC nominal)
- Manual control with a built-in potentiometer
- Regulated output of 2 Amps (adjustable)
- Efficient control
- Minimum output current adjustment to compensate for valve deadband
- Fixed superimposed dither to reduce valve hysteresis
- Reverse polarity protection inherent in design
- Short circuit protection
- Filter eliminates electrical noise
- Robust, rugged and highly reliable
- Compact size
- Direct panel mount for remote control of a proportional solenoid
- Version packaged in a metal box for remote mounting available
- Interfaces to a grounded solenoid (not supplied)
- Operational from -40 to 85°C



## Application:

- material handling equipment
- aerial lift equipment
- mobile agricultural equipment
- proportional hydraulic circuits in a variety of mobile and industrial applications

## BLOCK DIAGRAM



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## Technical Specifications:

All specifications are typical at nominal input voltage and 25 degrees C unless otherwise specified.

Input Specifications		<h3>Mounting, Connections, Power Up and Adjustments</h3> <ul style="list-style-type: none"> <li>Mounting holes accept four 8-32 screws (not supplied).</li> <li>Connect the power supply and solenoid (load). Refer to electrical connection for the pin out of the lead wires.</li> <li>Adjust the trim pots with a jeweller's screwdriver as described below.</li> </ul> <p>Use the I-Min. trim pot to set up minimum speed with minimum control input. (0-500 mA) Setpoint increases as trim pot is turned clockwise.</p> <p>Use the I-Max. trim pot to set maximum speed with 100% of control input. (600-2000mA) Setpoint increases as trim pot is turned clockwise.</p> <p>Mounting holes (dia.0.169 inches [4.3 mm]) accept four 8-32 screws.</p>
Power Source	12 or 24 VDC nominal (9 to 32 VDC)	
Reverse Voltage Protection	Inherent in design	
Short Circuit Protection	Provided	
General Specifications		
Operating Temperature	-40 to 85°C (-40 to 185°F)	
Solenoid Selection (nominal)	Solenoid selection should comply with: (Vpower supply – 1.5V)/I-max = R coil	
Electrical Connection	RED - Power + GREEN - Power GND and Output GND BLACK - Output + 24 in. of 18 AWG lead wires	
Output Specifications		
Regulated Current Output	0-2 Amps (adjustable with potentiometer) <i>The potentiometer turned fully clockwise (CW) represents a 0A output or the minimum position. The potentiometer turned fully counterclockwise (CCW) represents the 2A for maximum position.</i>	
Dither (fixed)	180 Hz frequency 10% amplitude	
Minimum Current Adjustment (10 turn trim pot)	0 to 500 mA <i>(increases as trim pot is turned clockwise)</i>	
Maximum Current Adjustment (10 turn trim pot)	600 to 2000 mA <i>(increases as trim pot is turned clockwise)</i>	
Dimensions	2.50 x 2.50 x 1.89 inches 63.7 x 63.7 x 48.2 mm (W x L x H)	
<b>Ordering Part Number:</b>	<b>CC-01</b>	

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Approvals/Limitations and Return Materials Process as described on [www.axiomatic.com/service.html](http://www.axiomatic.com/service.html).